

COPY OF PAPERS  
ORIGINALLY FILED



PATENT  
ATTORNEY DOCKET  
NO. 69570

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): James W. Bacus et al. )

Appln No.: 09/740,711 )

Filed: December 19, 2000 )

Title: METHOD AND APPARATUS FOR  
ANALYZING A MICROARRAY )

Group Art Unit: 2621 )

Examiner: Andrew W. Johns )

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on this date.

Date 7/3/02  
Registration No. 19,958  
Attorney for Applicant(s)

It is a  
D. Butler  
7-24-02

AMENDMENT A

RECEIVED

JUL 17 2002

Technology Center 2600

Box NON-FEE AMENDMENT  
Commissioner of Patents and Trademarks  
ATTENTION: Assistant Commissioner  
for Patents  
Washington, D.C. 20231

Dear Sir:

In response to the Official Action of April 4, 2002, please amend the above-identified patent application, as follows:

IN THE SPECIFICATION:

Please replace the paragraph on page 13, line 15 through page 14, line 6, with the following rewritten text:

--When a tissue sample microarray 19 is on the slide 18 the stage 20 may be manipulated under the control of the computer through a stage controller 160 coupled to the serial I/O controller 122. The stage controller sends motion commands to a pair of stepper motors 161a and 161b. A pair of shaft encoders 161c and 161d send stage position signals back. Likewise, a microscope controller 162 controls operating characteristics of the microscope 16 such as illumination, color temperature or spectral output of a lamp 168 and the like. For instance, in

A.  
con't

normal operation, when a tissue sample microarray slide 18 is placed on the stage 20, as shown in FIG. 1, the processors 42 or 44 send a command through the system bus to cause the serial I/O controller 122 to signal the microscope controller to change magnification to 1.25X in a step 202. This is done by rotating the objective turret of the Axioplan 2 microscope to select the objective 144. Likewise, the controller sets the color temperature of the lamp 168, sets a pair of neutral density filter wheels 170 and 172 and sets a field diaphragm 174 for the correct illumination. A condenser diaphragm 176 is also controlled. A color filter wheel 180 may also be controlled to apply the appropriate filter color to the CCD sensors 126 in the camera.--

2004.07.16

IN THE CLAIMS:

4. (Once Amended) A method of processing an image of a tissue sample microarray according to claim 3, wherein the displayed image is a low magnification image of a dot.

200

5. (Once Amended) A method of processing an image of a tissue sample microarray according to claim 3, wherein the displayed image is a high magnification image of at least a portion of one of the tissue dots.

Please cancel Claims 16 and 17.

REMARKS

The allowance of claims 1-3 and 6-15 is noted and appreciated. Claims 4 and 5 have been amended to better define the invention. Claims 16 and 17 have been cancelled. The renumbering of Claims 9-15 is noted and appreciated.

Application No. 09/740,711  
Filed December 19, 2000

PATENT  
Attorney Docket No. 69570

With respect to paragraph 3 of the Official Action, Claims 3 and 4 have been, as suggested by the Examiner, to depend from Claim 3 rather than Claim 2. The Examiner's helpful insight in this matter is appreciated. Thus, Claims 4 and 5 are submitted to satisfy 35 U.S.C. § 112, second paragraph.

In view of the foregoing, it is submitted that the application is in condition for allowance, which is respectfully requested.

Respectfully requested,

FITCH, EVEN, TABIN & FLANNERY

By: 

James J. Hamill

Registration No.: 19,958

Date: 7/3/02

120 South LaSalle Street, Suite 1600  
Chicago, Illinois 60603-4277  
Telephone: (312) 577-7000



PATENT  
ATTORNEY DOCKET  
NO. 69570

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): James W. Bacus et al. )

Appln No.: 09/740,711 )

Filed: December 19, 2000 )

Title: METHOD AND APPARATUS FOR ANALYZING A MICROARRAY )

Group Art Unit: 2621 )

Examiner: Andrew W. Johns )

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on this date.

7/3/02 *[Signature]*  
Date Registration No. 19,958 Attorney  
for Applicant(s)

APPENDIX TO AMENDMENT A

RECEIVED

JUL 17 2002

Technology Center 2600

Box NON-FEE AMENDMENT  
Commissioner of Patents and Trademarks  
ATTENTION: Assistant Commissioner  
for Patents  
Washington, D.C. 20231

Dear Sir:

Pursuant to 37 C.F.R. § 1.121, as amended effective 7 November 2000, Applicant presents herewith marked-up paragraphs of the specification and marked-up text of the claims of this application as amended by the foregoing amendment

Marked-up paragraph beginning on page 13, line 15 through page 14, line 6:

When a tissue sample microarray 19 is on the slide 18 the stage 20 may be manipulated under the control of the computer through a stage controller 160 coupled to the serial I/O controller 122. The stage controller sends motion commands to a pair of stepper motors 161a and 161b. A pair of shaft encoders 161c and 161d send stage position signals back. Likewise, a microscope controller 162 controls operating characteristics of the microscope 16 such as illumination, color temperature or

005421140460

spectral output of a lamp 168 and the like. For instance, in normal operation, when a tissue sample microarray slide 18 is placed on the stage 20, as shown in FIG. [ ] 1, the processors 42 or 44 send a command through the system bus to cause the serial I/O controller 122 to signal the microscope controller to change magnification to 1.25X in a step 202. This is done by rotating the objective turret of the Axioplan 2 microscope to select the objective 144. Likewise, the controller sets the color temperature of the lamp 168, sets a pair of neutral density filter wheels 170 and 172 and sets a field diaphragm 174 for the correct illumination. A condenser diaphragm 176 is also controlled. A color filter wheel 180 may also be controlled to apply the appropriate filter color to the CCD sensors 126 in the camera.

**Marked up test of Claims 4 and 5:**

4. (Once Amended) A method of processing an image of a tissue sample microarray according to claim [2] 3, wherein the displayed image is a low magnification image of a dot.

5. (Once Amended) A method of processing an image of a tissue sample microarray according to claim [2] 3, wherein the displayed image is a high magnification image of at least a portion of one of the tissue dots.

Respectfully requested,

FITCH, EVEN, TABIN & FLANNERY

By: \_\_\_\_\_

James J Hamill

Registration No.: 19,958

Date: 7/3/02

120 South LaSalle Street, Suite 1600  
Chicago, Illinois 60603-4277  
Telephone: (312) 577-7000

COPY OF PAPERS  
ORIGINALLY FILED



PATENT

Attorney Docket No. 69570

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): James W. Bacus et al.

AppIn No.: 09/740,711

Filed: December 19, 2000

For: METHOD AND APPARATUS FOR  
ANALYZING A MICROARRAY

Group Art  
Unit: 2621

Examiner: Andrew W. Johns

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on this date.

07/03/02

Date

James J. Hamill

Registration No. 19,958

Attorney for Applicant(s)

Box NON-FEE AMENDMENT  
Commissioner of Patents and Trademarks  
ATTENTION: Assistant Commissioner for Patents  
Washington, D.C. 20231

**RECEIVED**

**JUL 17 2002**

**Technology Center 2600**

Sir:

Transmitted herewith is an amendment/reply in the above-identified application.

- ☒ Included with this amendment/reply are clean paragraphs/claims and marked-up paragraphs/claims according to 37 C.F.R. §1.121.
- ☐ A paper requesting correction/substitution of drawings is attached.
- ☒ No additional fee is required.

Fee Calculation For Claims As Amended

	As Amended	Previously Paid For	Present Extra	Rate	Additional Fee
Independent Claims	<u>1</u>	<u>3</u>	** = 0	x \$ 84.00	= \$ 0.00
Total Claims	<u>15</u>	<u>17</u>	* = 0	x \$ 18.00	= \$ 0.00
Fee for Multiply Dependent Claims				\$ 280.00	
** At least 3			Total Additional Fee		\$ 0.00
* At least 20					

- ☐ Applicant(s) assert entitlement to Small Entity Status, thus reducing the fee by half to:

\$ 0.00

- ☐ A check in the amount of \$\_\_\_\_\_ is attached.
- ☐ Charge \$\_\_\_\_\_ to Deposit Account No. 06-1135.
- ☒ The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135. A duplicate copy of this sheet is enclosed.

July 3, 2002

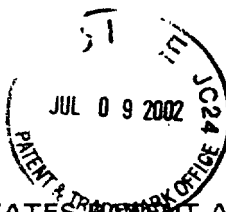
Date

  
James J. Hamill

Registration No. 19,958

FITCH, EVEN, TABIN & FLANNERY  
Suite 1600  
120 South LaSalle Street  
Chicago, Illinois 60603-3406  
Telephone: (312) 577-7000  
Facsimile: (312) 577-7007

0061214260



COPY OF PAPERS  
ORIGINALLY FILED

PATENT

Attorney Docket No. 69570

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): James W. Bacus et al.

Appln No.: 09/740,711

Filed: December 19, 2000

For: METHOD AND APPARATUS FOR  
ANALYZING A MICROARRAY

Group Art  
Unit: 2621

Examiner: Andrew W. Johns

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on this date.

07/03/02

Date

James J. Hamill

Registration No. 19,958

Attorney for Applicant(s)

RECEIVED  
JUL 17 2002

Technology Center 2600

PETITION FOR EXTENSION OF TIME

Applicant(s) hereby petition(s) under 37 CFR §1.136(a) for an extension of time for reply in the above-identified application for the period required to make the accompanying reply timely, or, if there be no accompanying reply, for the period for which the fee is indicated or the period necessary to prevent abandonment of the above-identified application if longer than the period for which the fee is indicated.

Extension fee for reply within first month:

- ☒ By a small entity (§1.9(f)) . . . . . \$ 55.00  
☐ By other than a small entity . . . . . \$ 110.00

Extension fee for reply within second month:

- ☐ By a small entity (§1.9(f)) . . . . . \$ 200.00  
☐ By other than a small entity . . . . . \$ 400.00

Extension fee for reply within third month:

- ☐ By a small entity (§1.9(f)) . . . . . \$ 460.00  
☐ By other than a small entity . . . . . \$ 920.00

Extension fee for reply within fourth month:

- ☐ By a small entity (§1.9(f)) . . . . . \$ 720.00  
☐ By other than a small entity . . . . . \$1,440.00

Extension fee for reply within fifth month:

- ☐ By a small entity (§1.9(f)) . . . . . \$ 980.00  
☐ By other than a small entity . . . . . \$1,960.00

☐ A check in the amount of \$\_\_\_\_\_ to cover the extension fee is enclosed.



COPY OF PAPERS  
ORIGINALLY FILED


Attorney Docket No. 69570

☒ Charge \$ 55.00 to Deposit Account No. 06-1135.

☒ The Commissioner is hereby authorized to charge any additional fees which may be required in this application under 37 C.F.R. §§1.16-1.17 during its entire pendency, or credit any overpayment, to Deposit Account No. 06-1135. Should no proper payment be enclosed herewith, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1135. This sheet is filed in triplicate.

July 3, 2002

Date

  
James J. Hamill  
Registration No. 19,958

FITCH, EVEN, TABIN & FLANNERY  
Suite 1600  
120 South LaSalle Street  
Chicago, Illinois 60603-3406  
Telephone: (312) 577-7000  
Facsimile: (312) 577-7007

00677460